

CHAPTER 2

PREPARATION OF INPUT DATA

A. GENERAL PROCESSING CRITERIA

1. The instructions and criteria described below are applicable to the preparation of work unit data for input to the WUIS. These apply also to the use of DD Form 1498. The field names and numbers are applicable to the DD Form 1498 and various kinds of machine-readable input.

2. Critical Control Fields. The following data fields are critical to the processing of all work unit reports. Omission of any of these three fields will cause the record to be rejected.

- a. Agency accession (field 1).
- b. Date of summary (field 2).
- c. Kind of summary (field 4).

3. Deletion of Work Unit Records. A reporting agency may submit transactions to delete entire records automatically from the data base. To do so contact DTIC-T/WUIS for necessary instructions.

B. INSTRUCTIONS FOR NEW SUMMARIES

1. A work unit record can be established in the data base only by a report with a transaction type "A" NEW-

2. In general, a NEW transaction shall include all the data elements described in Chapter 2. section D. of this Manual, except those that clearly are optional or unique to another DoD Component.

3. Omissions or errors in certain data elements related to security or releasability (fields 5, 7, and 8) will cause the report to be inaccessible by normal retrieval procedures. Omissions or errors in other fields (such as 13, 14) will generate an error notification to the report originator, but will not inhibit access to or retrieval of the incomplete record. In the case of a classified work unit (WU) summary, the absence of field 12 will make the record inaccessible.

C. INSTRUCTIONS FOR SUMMARY MODIFICATIONS

1. All transactions to update an existing record shall include the three critical control fields and any other fields requiring updating. A card **type A01**, complete through **column 19**, shall be submitted in addition to those card types containing data fields to be updated. Include on the card types only the control fields and the fields requiring updating or correction. (See Chapter 3 for information on card types.)

2. A plus (+) sign is provided as a field delete code for use by the contributor on update transactions to delete certain previously reported data from individual data fields within a record. This is accomplished by entering the plus sign (+) in the high-order (left-most) position of the specific data field in the card or card image. Deletions that add or replace other data may occur on the same transactions. Exercise care in the use of the delete code because for many data elements a blank on the record is an invalid condition that will cause an error message to be generated. For those fields in which a

blank cannot be tolerated, the input program will ignore all attempts to use the delete code.

D. DETAILED FIELD DESCRIPTIONS AND PROCESSING CRITERIA

1. This section contains a detailed discussion of every data field that comprises a work unit record (see table 2-1). Each data field is identified by a field number, field name, and maximum field length. The discussion of each data field contains a definition of the data element, an explanation of its use, and the requirements or conditions for entering data into that field as well as an outline of the edit and audit criteria used to determine the validity of the data submitted as input to that field.

a. An error detected in one of the critical control fields will preclude processing of the transaction. Chapter 4, figure 4-2, describes the contributor feedback document that identifies the control field in error and lists the card types rejected. The transaction card types thus rejected shall be corrected and resubmitted.

b. A "catastrophic" error will result if the transaction or updated record contains an error in one of the fields pertaining, to the security classification of the record or if its distribution limitations are not specified in accordance with criteria described in this Manual. Because of a possible security error, a release-inhibit lockout flag is set in the master file record that prevents the record from being accessed by the normal output programs. This situation will persist until a modification transaction corrects the error in the master file.

c. All data field errors other than those pertaining to control or security fields are termed "noncatastrophic" errors. Such errors have no effect on the acceptance of the transactions or the availability of the updated record. The data, as transmitted to DTIC, are updated to the master file and the updated records are accessible immediately by normal output programs.

2. A number of edit and audit flags are designated in the master file record, each corresponding to one of the edit or audit criteria established for each data field. During the edit and audit phase of the update program, the data are validated against the criteria described in this Manual. If data for particular fields do not pass this validation, the appropriate edit or audit error flag is generated. Each error flag will persist until an update transaction for that data field satisfies the edit and audit criteria. Each flag is associated with a unique error message. As a result of an update action against a record all the messages related to the error flags that have been generated will be printed and returned to the contributor so the record can be reviewed and corrected in later modification transactions. Chapter 4, table 4-1, describes these edit and audit error messages and the feedback documents resulting from them.

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit																																								
1 - Agency Accession (8 Alphanumeric)	A valid entry is mandatory on all input regardless of transaction type. It is assigned by the DoD Component involved and is composed of a 2-character alphabetic code (Digraph) indicating the submitting agency and a 6-character serial unique to each work unit record.	<p>a. The first two characters shall be equal to one of the following:</p> <table><tr><th>Digraph</th><th>Agency</th></tr><tr><td>DA</td><td>Department of the Army</td></tr><tr><td>DB</td><td>Defense Mapping Agency</td></tr><tr><td>DD</td><td>Department of Defense-Office of the Secretary of Defense (OSD), Offices of the Under Secretaries of Defense (OUSD), and Offices of the Assistant Secretaries of Defense (OASD)</td></tr><tr><td>DE</td><td>Defense Advanced Research Projects Agency (DARPA)</td></tr><tr><td>DF</td><td>Department of the Air Force</td></tr><tr><td>DG</td><td>National Security Agency/Central Security Service (NSA/CSS)</td></tr><tr><td>DH</td><td>Defense Nuclear Agency (DNA)</td></tr><tr><td>DJ</td><td>Joint Chiefs of Staff, including the Joint Staff, Unified or Specified Commands and Joint Service Schools</td></tr><tr><td>DK</td><td>Defense Communications Agency (DCA)</td></tr><tr><td>DL</td><td>Defense Intelligence Agency (DIA)</td></tr><tr><td>DM</td><td>United States Marine Corps</td></tr><tr><td>DN</td><td>Department of the Navy</td></tr><tr><td>DP</td><td>U.S. Coast Guard</td></tr><tr><td>DR</td><td>Defense Contract Audit Agency (DCAA)</td></tr><tr><td>DS</td><td>Defense Logistics Agency (DLA)</td></tr><tr><td>DT</td><td>Defense Security Assistance Agency (DSAA)</td></tr><tr><td>DU</td><td>Defense Audit Service (DAS)</td></tr><tr><td>DV</td><td>Defense Investigative Service (DIS)</td></tr><tr><td>DW</td><td>Uniformed Services University of the Health Sciences (USUHS)</td></tr></table>	Digraph	Agency	DA	Department of the Army	DB	Defense Mapping Agency	DD	Department of Defense-Office of the Secretary of Defense (OSD), Offices of the Under Secretaries of Defense (OUSD), and Offices of the Assistant Secretaries of Defense (OASD)	DE	Defense Advanced Research Projects Agency (DARPA)	DF	Department of the Air Force	DG	National Security Agency/Central Security Service (NSA/CSS)	DH	Defense Nuclear Agency (DNA)	DJ	Joint Chiefs of Staff, including the Joint Staff, Unified or Specified Commands and Joint Service Schools	DK	Defense Communications Agency (DCA)	DL	Defense Intelligence Agency (DIA)	DM	United States Marine Corps	DN	Department of the Navy	DP	U.S. Coast Guard	DR	Defense Contract Audit Agency (DCAA)	DS	Defense Logistics Agency (DLA)	DT	Defense Security Assistance Agency (DSAA)	DU	Defense Audit Service (DAS)	DV	Defense Investigative Service (DIS)	DW	Uniformed Services University of the Health Sciences (USUHS)
Digraph	Agency																																									
DA	Department of the Army																																									
DB	Defense Mapping Agency																																									
DD	Department of Defense-Office of the Secretary of Defense (OSD), Offices of the Under Secretaries of Defense (OUSD), and Offices of the Assistant Secretaries of Defense (OASD)																																									
DE	Defense Advanced Research Projects Agency (DARPA)																																									
DF	Department of the Air Force																																									
DG	National Security Agency/Central Security Service (NSA/CSS)																																									
DH	Defense Nuclear Agency (DNA)																																									
DJ	Joint Chiefs of Staff, including the Joint Staff, Unified or Specified Commands and Joint Service Schools																																									
DK	Defense Communications Agency (DCA)																																									
DL	Defense Intelligence Agency (DIA)																																									
DM	United States Marine Corps																																									
DN	Department of the Navy																																									
DP	U.S. Coast Guard																																									
DR	Defense Contract Audit Agency (DCAA)																																									
DS	Defense Logistics Agency (DLA)																																									
DT	Defense Security Assistance Agency (DSAA)																																									
DU	Defense Audit Service (DAS)																																									
DV	Defense Investigative Service (DIS)																																									
DW	Uniformed Services University of the Health Sciences (USUHS)																																									

Table 2-1

Detailed WUIS Field Descriptions

Field	<u>Instruction</u>	<u>Edit and Audit</u>										
1 - Agency Accession (8 Alphanumeric) continued		<p>a. The first two characters shall be equal to one of the following:</p> <table><tr><th><u>Digraph</u></th><th><u>Agency</u></th></tr><tr><td>VN</td><td>National Aeronautics and Space Administration (NASA)</td></tr><tr><td>WC</td><td>Federal Emergency Management Agency (FEMA)</td></tr></table> <p>b. The next six characters shall equal one of the following serial ranges:</p> <table><tr><th><u>Digraph</u></th><th><u>Serial</u></th></tr><tr><td>DA</td><td>1st position can be zero (≥ 3 if 2nd position is an alpha) 2nd position can be alphanumeric 3rd position through 6th positions, 000001 through 999999</td></tr></table> <p>All others 1st through 6th positions, 000001 through 999999</p>	<u>Digraph</u>	<u>Agency</u>	VN	National Aeronautics and Space Administration (NASA)	WC	Federal Emergency Management Agency (FEMA)	<u>Digraph</u>	<u>Serial</u>	DA	1st position can be zero (≥ 3 if 2nd position is an alpha) 2nd position can be alphanumeric 3rd position through 6th positions, 000001 through 999999
<u>Digraph</u>	<u>Agency</u>											
VN	National Aeronautics and Space Administration (NASA)											
WC	Federal Emergency Management Agency (FEMA)											
<u>Digraph</u>	<u>Serial</u>											
DA	1st position can be zero (≥ 3 if 2nd position is an alpha) 2nd position can be alphanumeric 3rd position through 6th positions, 000001 through 999999											

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
1 - Agency Accession - continued		c. Any transaction for which field 1 is blank or does not meet the preceding criteria will be rejected by the input program.
2 - Date of Summary (6 Numeric)	A valid entry is mandatory on all reports regardless of transaction type to ensure that successive modifications to a data record are processed in the proper sequence. Enter the standard 6-digit date (year, month, day) to identify the date on which a machine-readable transaction was prepared by a contributing activity for transmittal to DTIC.	<p>a. The left-most two digits for year shall be in the range of CY-1 to CY+1.</p> <p>b. The middle two digits for month shall be in the range of 01 to 12.</p> <p>c. The right-most two digits for day shall be in the range of 01 to 31.</p> <p>d. On a modification type transaction, the date in field 2 of the incoming transaction shall be equal to or greater than the date of summary already on the record.</p> <p>e. Any transaction in which field 2 is blank or does not meet the preceding criteria will be rejected by the input program.</p>
3 - Date of Previous Summary (6 Numeric)	This field records the date of summary that the current transaction is updating. The standard DoD 6-digit date identifies the date of summary of the preceding A, D, H, or K report submitted for this accession number.	<p>a. The left-most two digits for year shall be in the range of CY-1 to CY+1.</p> <p>b. The middle two digits for month shall be in the range of 01 to 12.</p> <p>c. The right-most two digits for day shall be in the range of 01 to 31.</p>
4 - Kind of Summary (Transaction Type) (1 Alpha)	A valid transaction-type code is mandatory on all reports. The code is critical because the mandatory data reporting requirements depend upon the transaction type.	a. One of the following single-character type codes shall be used.

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit	
4 - Kind of Summary - continued	<p>a. <u>Transaction Type NEW, Code A.</u> This type of transaction is used only as the initial report of a work unit to the data base. It is the only means by which a work unit can be established in the system for an accession number never previously submitted.</p> <p>b. The remaining types of transactions--CHANGE, COMPLETION, and TEHMINATION--may be used only to modify a previously established record. They are referred to commonly as "modification transactions" and are used only to change, add, or delete data. The primary difference between them is that each has a unique influence on the status of the updated record. In using any of the modification trans- actions, it is necessary to enter, in addition to the three critical control fields, only the specific data fields (or sets of data fields) that are to be added, changed, or deleted.</p> <p>c. <u>Transaction Type CHANGE, Code D.</u> The primary purpose of a D transaction is to modify an active (A or D) work unit record. In addition, an inactive H or K record may be reactivated by submitting a D transaction for that accession number. The effect of a D transaction is to enter the status of the record as CHANGE (active) and replace the date of summary with the date of the D transaction.</p> <p>d., <u>Transaction Type TERMINATION, Code H.</u> The purpose of the H transaction is to report the cancellation, suspension, or discontinuation of a work unit. The H transaction also can be used to modify a previous H record without altering its status. The effect of the H transaction is to enter the status of the record as TERMINATION (inactive) and update the date of summary field.</p>	Code	<u>Transaction Type</u>
		A	NEW
		D	CHANGE
		H	TERMINATION
		K	COMPLETION
		<p>b. If the transaction code is A, the accession number in field 1 cannot have been recorded previously in the WUDB.</p> <p>c. If the transaction code is D, H, or K the accession number shall be recorded in the WUDB and the present transaction shall include a valid date of previous summary in field 3.</p> <p>d. Any transaction in which field 4 is blank or does not meet the preceding criteria will be rejected by the input program.</p>	

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit								
4 ~ Kind of Summary - continued	<p>e. <u>Transaction Type COMPLETION, Code K.</u> The purpose of the K transaction is to report the completion of the technical work on a work unit. The K transaction also may be used to modify a K record without altering its status. The effect of a K transaction is to enter the status of the record as COMPLETION (inactive) and to update the date of summary field.</p> <p>f. Special procedures for exceptional and specific file maintenance and correction transactions are covered in section B, Chapter 4.</p>									
5 ~ Summary Security (1 Alpha)	<p>At all times a work unit record shall contain a valid entry for summary security in field 5. This entry describes the overall security classification of the record. For a NEW transaction, it also shall correspond to the classification of the report itself. A valid entry is mandatory on all NEW transactions. It is also required on all modification transactions in which the security classification code in any of the following data fields is upgraded or downgraded: Keywords (field 22), Objective (field 23), Approach (field 24) or Progress (field 25).</p>	<p>a. A valid entry shall consist of one of the following single-character codes:</p> <table><tr><th>Code</th><th><u>Classification</u></th></tr><tr><td>s</td><td>SECRET</td></tr><tr><td>c</td><td>CONFIDENTIAL</td></tr><tr><td>u</td><td>UNCLASSIFIED</td></tr></table> <p>b. The Summary Security (field 5) must be equal to the highest security classification entered for fields 22, 23, 24, or 25.</p>	Code	<u>Classification</u>	s	SECRET	c	CONFIDENTIAL	u	UNCLASSIFIED
Code	<u>Classification</u>									
s	SECRET									
c	CONFIDENTIAL									
u	UNCLASSIFIED									
		<hr/> <p>¹Although TOP SECRET is a valid classification for an R&T Work Unit Summary, all summaries with this classification shall be forwarded directly to the NSA; therefore any security classification code of T in fields 5, 22, 23, 24, or 25 in a transaction received at DTIC for entry in the WUDB will cause the transaction to be rejected.</p>								

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit														
5 - Summary Security - continued		<p>c. If field 5 is S or C, one of the security classifications entered for fields 22, 23, 24 or 25 shall be S or C.</p> <p>d. If field 5 is U, field 7 (Regrading) shall be blank. If field 5 is S or C, field 7 must be A, B, C, E, or F.</p>														
6 - Work Security (1 Alpha)	An entry is required in this field to identify the overall classification of the work described in the work unit record but not the classification of the summary itself. A valid entry is required on all NEW transactions and may not be deleted by a modification transaction.	<p>The entry shall consist of one of the following single-character codes:</p> <table><tr><th>Code</th><th>Work Security</th></tr><tr><td>T</td><td>TOP SECRET</td></tr><tr><td>S</td><td>SECRET</td></tr><tr><td>C</td><td>CONFIDENTIAL</td></tr><tr><td>U</td><td>UNCLASSIFIED</td></tr></table>	Code	Work Security	T	TOP SECRET	S	SECRET	C	CONFIDENTIAL	U	UNCLASSIFIED				
Code	Work Security															
T	TOP SECRET															
S	SECRET															
C	CONFIDENTIAL															
U	UNCLASSIFIED															
7 - Regrading Code (1 Alpha)	<p>A valid entry is mandatory in the work unit record when the summary security (field 5) is S or C. This entry is required on all NEW transactions which upgrade or downgrade (except to U) the summary security. If the work unit record is declassified by a modification transaction, a delete code shall be entered simultaneously in field 7 and all subelements (fields 7A thru 7D).</p>	<p>a. The entry must be one of the following codes:</p> <table><tr><th>Code</th><th>Regrading Code Meaning</th></tr><tr><td>A</td><td>Record with a Declassification Date</td></tr><tr><td>B</td><td>Record with a Declassification Event</td></tr><tr><td>C</td><td>Record with Originating Agency's Determination Required (OADR)</td></tr><tr><td>E</td><td>Restricted Data or Formerly Restricted Data Record</td></tr><tr><td>F</td><td>Foreign Source Record</td></tr><tr><td>Blank</td><td>None (Unclassified Record)</td></tr></table>	Code	Regrading Code Meaning	A	Record with a Declassification Date	B	Record with a Declassification Event	C	Record with Originating Agency's Determination Required (OADR)	E	Restricted Data or Formerly Restricted Data Record	F	Foreign Source Record	Blank	None (Unclassified Record)
Code	Regrading Code Meaning															
A	Record with a Declassification Date															
B	Record with a Declassification Event															
C	Record with Originating Agency's Determination Required (OADR)															
E	Restricted Data or Formerly Restricted Data Record															
F	Foreign Source Record															
Blank	None (Unclassified Record)															

Table 2-1

Detailed **WUIS** Field Descriptions

Field	Instruction	Edit and Audit				
7 - Regrading Code - continued		<p>b. <u>If field 5 is:</u> <u>field 7 shall be:</u></p> <table><tr><td>S or C</td><td>A, B, C, E, or F</td></tr><tr><td>u</td><td>Blank</td></tr></table> <p>c. Failure of the above criteria will result in a catastrophic error.</p>	S or C	A, B, C, E, or F	u	Blank
S or C	A, B, C, E, or F					
u	Blank					
7A - Classification Authority (6o Alphanumeric)	<p>A valid entry is mandatory in the work unit record when the summary security (field 5) is S or C. This entry is to identify a particular official, source document or classification guide that authorized the original classification of the record. This entry is mandatory on all NEW transactions if field 5 is S or C and on all modification transactions that upgrade or down-grade (except to U) the summary security.</p>	<p>a. If field 5 is S or C, field 7A shall contain a valid entry.</p> <p>b. Failure of the above criteria will result in a catastrophic error.</p>				
7B1 - Date of Declassification (6 Numeric)	<p>This entry is to identify the date on which classified information in the work unit record is to become unclassified. Enter the standard DoD 6-digit date (year, month, day) to indicate when field 5 is to be changed to U by a modification transaction.</p> <p>a. The left-most two digits shall be in the range of 00 to 99 (entries 00 thru 40 indicate years 2000 thru 2040); the middle two digits shall be in the range of 01 to 12; the right-most two digits shall be in the range of 01 to 31.</p> <p>b. A valid entry ia mandatory when the summary security (field 5) is S or C and the regrading code (field 7) is an A.</p>	<p>a. If field 5 is S or C and field 7 is A, a valid entry is required in field 7B1.</p> <p>b. If field 7D has data, field 7B1 shall be blank.</p> <p>c. Failure of the above criteria will result in a catastrophic error.</p>				

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
7B2 - Declassification Event (54 Alphanumeric)	<p>This entry is to identify the event certain to occur on which classified information in the work unit record is to become unclassified. Enter the specific event, left-justified, to indicate when the summary security (field 5) is to be changed to U by a modification transaction.</p>	<p>a. If field 5 is S or C and field 7 is B, a valid entry is required in field 7B2.</p> <p>b. Failure of the above criteria will result in a catastrophic error,</p>
7C1 - Downgrading Date (6 Numeric)	<p>This entry is to identify the date on which SECRET information in the record is downgraded to CONFIDENTIAL. Enter the standard DoD 6-digit date (year, month, day) to indicate when field 5 is to be changed to C by a modification transaction.</p> <p>The left-most two digits shall be in the range of 00 to 99 (entries 00 thru 40 indicate years 2000 thru 2040); the middle two digits shall be in the range of 01 to 12; the right-most two digits shall be in the range of 01 to 31.</p>	<p>a. If field 5 is S, a valid entry is permitted if field 7C2 is blank.</p> <p>b. If field 5 is C, field 7C1 shall be blank.</p>
7C2 - Downgrading Event (54 Alphanumeric)	<p>This entry is to identify the event certain to occur on which the SECRET information in the work unit record is to become CONFIDENTIAL. Enter the specific event, left-justified, to indicate when the summary security (field 5) is to be changed from S to C by a modification transaction.</p>	<p>a. If field 5 is S, a valid entry is permitted if field 7C1 is blank.</p>
7D - Classification Duration (4 Alpha)	<p>This entry is to identify the classified information in the work unit record as having an indefinite duration of classification. Enter the acronym OADR to indicate "Originating Agency's Determination Required."</p> <p>A valid entry is mandatory when the summary security (field 5) is S or C and the regrading code in field 7 is C.</p>	<p>a. If field 5 is S or C and field 7 is C, the acronym OADR is required in field 7D.</p> <p>b. If fields 7B1 or 7B2 have data, field 7D shall be blank.</p> <p>c. Failure in the above criteria will result in a catastrophic error.</p>

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit																						
8A1 - Distribution Instructions (2 Alpha)	<p>A valid entry for this field is mandatory at all times in the work unit record to identify the level of distribution limitation appropriate to the work unit record. Therefore, a valid entry is mandatory on all NEW transactions and may not be deleted by a modification transaction.</p> <p>a. <u>Distribution Instruction, Code DX</u>. Distribution limited to DoD, Components and their contractors/grantees ¹. (Statement D, Memorandum by the Secretary of Defense (reference (c)).)</p> <p>b. <u>Distribution Instruction, Code CX</u>. Distribution extended to other U.S. Government agencies, and their contractors/grantees. (Corresponds to Statement C (reference (c)).)</p>	<p>a. The entry shall consist of one of the following 2-character codes:</p> <table><tr><th>Code</th><th>Distribution Instructions</th></tr><tr><td>BF</td><td>U.S. Govt Only, Foreign Data</td></tr><tr><td>BP</td><td>U.S. Govt Only, Proprietary</td></tr><tr><td>BT</td><td>U.S. Govt Only, Test or Evaluation Data</td></tr><tr><td>BU</td><td>U.S. Govt Only, Preliminary, Planning or Internal Data</td></tr><tr><td>CX</td><td>U.S. Govt and their Contractors Only</td></tr><tr><td>DX</td><td>DoD and their Contractors Only</td></tr><tr><td>EE</td><td>DoD Only, Evaluation of Programs</td></tr><tr><td>EF</td><td>DoD Only, Foreign Data</td></tr><tr><td>ES</td><td>DoD Only, Trade Secrets</td></tr><tr><td>EP</td><td>DoD Only, Preliminary, Planning or Internal Data</td></tr></table>	Code	Distribution Instructions	BF	U.S. Govt Only, Foreign Data	BP	U.S. Govt Only, Proprietary	BT	U.S. Govt Only, Test or Evaluation Data	BU	U.S. Govt Only, Preliminary, Planning or Internal Data	CX	U.S. Govt and their Contractors Only	DX	DoD and their Contractors Only	EE	DoD Only, Evaluation of Programs	EF	DoD Only, Foreign Data	ES	DoD Only, Trade Secrets	EP	DoD Only , Preliminary, Planning or Internal Data
Code	Distribution Instructions																							
BF	U.S. Govt Only, Foreign Data																							
BP	U.S. Govt Only, Proprietary																							
BT	U.S. Govt Only, Test or Evaluation Data																							
BU	U.S. Govt Only, Preliminary, Planning or Internal Data																							
CX	U.S. Govt and their Contractors Only																							
DX	DoD and their Contractors Only																							
EE	DoD Only, Evaluation of Programs																							
EF	DoD Only, Foreign Data																							
ES	DoD Only, Trade Secrets																							
EP	DoD Only , Preliminary, Planning or Internal Data																							

¹DoD Contractors or Grantees include contractors properly registered with the Army Qualitative Requirements Information (**QRI**) Program, and Navy/Industry Cooperative Research and Development (**NICRAD**) Program, and the Air Force Potential Contractor Program (**PCP**).

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
8A] - Distribution Instructions - continued	<p>Information that is privileged or too sensitive to be released outside of the DoD or the U.S. Government may be coded to restrict access to DoD Components only or to U.S. Government agencies only. The use of these codes shall be fully justifiable. The reasons shall be identified as shown below. This usage shall be audited periodically and the originators requested to revise them, when possible, to one of the above codes.</p> <p>DISSEMINATION ONLY TO U.S. GOVERNMENT AGENCIES (STATEMENT B, Memorandum by the Secretary of Defense (reference (c))).)</p> <p>c. <u>Distribution Instruction, Code BF.</u> Information furnished by a foreign government with the provision that it shall not be released outside of the U.S. Government.</p> <p>d. <u>Distribution Instruction, Code BP.</u> Discloses proprietary information not owned by the U.S. Government nor protected by a contractor's "limited rights" statement received with the understanding that it shall not be transmitted outside the U.S. Government.</p> <p>e. <u>Distribution Instruction, Code BT.</u> Test or evaluation of commercial or military systems or hardware the disclosure of which could be detrimental to the U.S. Government or a manufacturer.</p> <p>f. <u>Distribution Instruction, Code BU.</u> Contains preliminary, planning, studies, analyses, or internal information on development or evaluation of programs or technologies that could be detrimental if disclosed outside of the U.S. Government.</p>	

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit								
8A1 - Distribution Instructions continued	<p>DISSEMINATION ONLY TO DoD COMPONENTS (STATEMENT E, Memorandum by the Secretary of Defense (reference (c)).)</p> <p>g. <u>Distribution Instruction, Code EE.</u> Discloses evaluation of contractor or other government agency programs.</p> <p>h. <u>Distribution Instruction, Code EF.</u> Discloses information furnished by a foreign government with the understanding that it not be transmitted outside of the Department of Defense.</p> <p>i. <u>Distribution Instruction, Code EP.</u> Contains preliminary or internally-controlled information or information on planning, funding, or evaluation of DoD programs, systems, studies, or technologies that warrant protection from premature disclosure.</p> <p>j. <u>Distribution Instruction, Code ES.</u> Discloses trade secrets or other proprietary information entrusted to the Department of Defense.</p>									
8A2 - Additional Security Restriction (2 Alpha)	<p>Enter when appropriate the additional security category imposed by the Atomic Energy Act (reference (d)) for Restricted or Formerly Restricted Data.</p>	<p>a. The entry shall be one of the following:</p> <table><tr><th><u>Entry</u></th><th><u>Meaning</u></th></tr><tr><td>Blank</td><td>Neither RD or FR</td></tr><tr><td>RD</td><td>Restricted Data</td></tr><tr><td>FR</td><td>Formerly Restricted Data</td></tr></table> <p>b. If field 8A2 is RD or FR, field 5 shall be C or S.</p> <p>c. If field 5 is U, field 8A2 shall be blank.</p>	<u>Entry</u>	<u>Meaning</u>	Blank	Neither RD or FR	RD	Restricted Data	FR	Formerly Restricted Data
<u>Entry</u>	<u>Meaning</u>									
Blank	Neither RD or FR									
RD	Restricted Data									
FR	Formerly Restricted Data									

Table 2-1

Detailed WIS Field Descriptions

Field	<u>Instruction</u>	<u>Edit and Audit</u>
9 - Level of Summary (1 Alpha)	An "A" in this field denotes an R&T W record.	Entry shall be A.
10A1 - Primary Number Codes 10A2 10A3 10A4	This is a set of four data elements that provide program or administrative identification of the primary source of support for the work unit. A valid entry for each of the four data fields is mandatory on all NEW transactions. On modification transactions, the entire set shall be resubmitted if any portion is changed. Also, no portion of the set may be deleted. Begin entry of data in the left-hand column of those fields in punch cards or card images. High-order zeros are not suppressed. If, for example a valid number is 002, enter 002 starting in the left-hand column of the field.	
10A1 - Primary Program Element Code (6 Alphanumeric)	An entry is mandatory for all NEW transactions. The field may never be deleted. For Doll RDT&E-funded work, the entry shall consist of a valid DoD program element code. In other DoD-funded efforts, enter an appropriate code or mnemonic to identify the appropriation or category; such as "O&M." A single zero in the high-order position of the field is used in those situations when the primary contributor to the work unit is a non-DoD agency and a DoD program element code is inapplicable.	The field may not be blank.

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
10A2 - Primary Project Number (12 Alphanumeric)	A valid agency project number or a zero is mandatory for all NEW transactions. Enter a zero in the high-order position of the field if a valid project number is not applicable.	The field may not be blank.
10A3 - Primary Task Area Number (10 Alphanumeric)	An entry in this field is mandatory for all NEW transactions. Enter the task area number associated with the project number in field 10A2. Enter a zero in the high-order position of the field if no task area is applicable.	The field may not be blank.
10A4 - Work Unit Number (16 Alphanumeric)	An entry for this field is mandatory for all NEW transactions. Enter the assigned agency work unit number. Enter a zero in the high-order position if no agency work unit number has been assigned.	The field may not be blank.
10B1 - Contributing Program Element Code (6 Alphanumeric)	This is an optional set of three data elements for use when necessary to identify a source of support for the work unit additional to that identified by the number or codes entered in fields 10A1 through 10A3. If there is no contributing support, fields 10B1 through 10B3 are blank (not submitted). If there is contributing DoD support for the work unit, a valid DoD program element code or other identifier is required in field 10B1. If a valid agency project number or task area number are not applicable , enter a single zero in the high-order position of one or both fields. If the contributing support is from a non-DoD agency enter a single zero in field 10B1 and appropriate codes if available in field 10B2 and 10B3 . Previous data in fields 10B1 through 10B3 may be deleted by a modification transaction if no longer applicable. Begin entry of data in the left-hand column of these fields in punch cards or card images. High-order zeros are not suppressed. If, for example, a valid number is 01, enter 01 starting in the left-hand column of the field	a. Fields 10B1 through 10B3 may be blank.
10B2 - Contributing Project Number (12 Alphanumeric)		b. If field 10B1 is blank, fields 10B2 and 10B3 shall be blank.
10B3 - Contributing Task Area Number (10 Alphanumeric)		c. If field 10B1 is not blank, fields 10B2, and 10B3 may not be blank.

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
10C1 - Contributing Program Element Code (6 Alphanumeric)	This is an optional set of three data elements for use when necessary to identify a source of support for the work unit additional to those identified by the number or codes in fields 10A1 through 10A3 and 10B1 through 10B3. If not applicable, fields 10CI through 10C3 are blank (not submitted). See the instructions given for fields 10B1 through 10B3.	
10C2 - Contributing Project Number (12 Alphanumeric)		
10C3 - Contributing Task Area Number (10 Alphanumeric)		
11 - Title (244 Alphanumeric)	A brief unclassified descriptive title for the work unit is mandatory at all times in a WUIS record. An entry is mandatory on all NEW transactions. The field may not be deleted by a modification transaction. The first character of the title field in the card or tape record is a single-character "U." When preparing cards or card images do not leave a space between the "U" and the first character of the title itself.	a. The field may not be blank or deleted. b. The first character of the title shall be U.
12A - Scientific and 12B Technological Fields 12C and Groups Codes (4 Numeric and 6 Characters - 5 Numeric with Special Character (.))	a. These are three data fields for reporting from one to three of the codes selected from the list shown in table 2-2. These codes identify the scientific and technological fields and groups which best describe the nature of the work unit. A valid entry, left justified, is mandatory in the record at all times for field 12A. Therefore, for all NEW transactions and all modification transactions that change the contents of fields 12A through 12C, field 12A must contain either a valid code or four zeros. A code consisting of four zeros may be entered in field 12A only for non-R&T work units for which none of the codes in table 2-2 are applicable (such as, certain types of contract work units submitted for CASE reporting).	a. Field 12A may not be blank and shall contain one of the listed codes or four zeros. b. Field 12B and 12C may be blank or contain a valid code.

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit																								
12A - Scientific and 12B Technological Fields and 12C Groups (F&G) Codes - continued	<p>b. On a NEW transaction, fields 12B or 12C or both may be blank if fewer than three F&G codes are applicable.</p> <p>c. On a modification transaction, previous data in fields 12B and 12C which are no longer applicable shall be individually changed or deleted.</p>																									
13 - Work Unit Start Date (4 Numeric)	<p>A 4-digit (year, month) date is required at all times in the record to identify the original date on which the work unit first began; therefore, it may be different from the contract or grant effective date (field 17A1). An entry is required on NEW transactions.</p>	<p>a. The left-hand two digits are the last two digits of the calendar year.</p> <p>b. The right-hand two digits represent the month and shall be in the range 01-12.</p>																								
14 - Estimated Completion Date (4 Numeric)	<p>An entry is required at all times on the record to indicate an estimate for the completion of the work unit. The entry is a 4-digit (year, month) date reflecting the estimated or actual completion date. For completed or terminated work units, replace the estimate by an actual date.</p>	<p>The entry is numeric, the left-hand two digits shall be the last two digits of the calendar year and the right-hand two digits shall be the month, in the range of 01-12.</p>																								
15A - Primary Funding Organization (2 Alpha)	<p>a. These are three data fields for reporting from one to three of the 2-character agency codes (digraphs) listed.</p>	<p>a. Field 15A may not be blank.</p>																								
15B - Other Funding Organization (2 Alpha)	<p>b. A valid agency digraph entry for field 15A is mandatory in the record at all times to identify the agency providing support for the work unit. Therefore, a valid digraph is mandatory in field 15A for NEW transactions and a modification transaction may never contain a delete code or an invalid digraph in that field. The organization shown by the digraph entered in field 15A shall correspond with that indicated by the primary number or codes entered for fields 10A1 through 10A4.</p>	<p>b. For DoD Components, enter one of the following digraphs as explained under field 1 (item a):</p>																								
15C - Other Funding Organization (2 Alpha)		<table><tr><td>DA</td><td>DF</td><td>DJ</td><td>DM</td><td>DR</td><td>DU</td></tr><tr><td>DB</td><td>DG</td><td>DK</td><td>DN</td><td>DS</td><td>DV</td></tr><tr><td>DD</td><td>DH</td><td>DL</td><td>DP</td><td>DT</td><td>DW</td></tr><tr><td>DE</td><td></td><td></td><td></td><td></td><td></td></tr></table>	DA	DF	DJ	DM	DR	DU	DB	DG	DK	DN	DS	DV	DD	DH	DL	DP	DT	DW	DE					
DA	DF	DJ	DM	DR	DU																					
DB	DG	DK	DN	DS	DV																					
DD	DH	DL	DP	DT	DW																					
DE																										

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit																																				
15A - Primary Funding Organization - continued	c. Fields 15B and 15C are used when appropriate to identify federal agencies or DoD Components other than that identified in field 15A that provide support for the work unit. If only one additional digraph is appropriate, enter it in field 15B . If entries are not appropriate for fields 15B or 15C , leave them blank. d. On a modification transaction, previous data in fields 15B or 15C that no longer are applicable shall be individually changed or deleted.	c. If one of these digraphs is entered in field 15A, a valid program element code for RDT&E-funded work or an appropriate code to identify the appropriation or category for other DoD-funded efforts shall be entered in field 10A1.																																				
15B - Other Funding Organization - continued		d. For non-DoD agencies, enter one of the following digraphs :																																				
15C - Other Funding Organization - continued																																						
		<table><tr><th><u>Digraph</u></th><th><u>Agency</u></th></tr><tr><td>Ax</td><td>Department of Agriculture</td></tr><tr><td>BX</td><td>Department of Labor</td></tr><tr><td>Cx</td><td>Department of Commerce</td></tr><tr><td>Fx</td><td>Department of Justice</td></tr><tr><td>GX</td><td>Department of Transportation</td></tr><tr><td>KX</td><td>Department of Interior</td></tr><tr><td>MX</td><td>Department of Housing and Urban Development</td></tr><tr><td>QX</td><td>Department of Treasury</td></tr><tr><td>Sx</td><td>Department of State</td></tr><tr><td>TG</td><td>General Services Administration</td></tr><tr><td>VA</td><td>Veterans Administration</td></tr><tr><td>VN</td><td>National Aeronautics and Space Administration</td></tr><tr><td>WA</td><td>Department of Energy</td></tr><tr><td>WC</td><td>Federal Emergency Management Agency</td></tr><tr><td>WS</td><td>National Science Foundation</td></tr><tr><td>XX</td><td>U.S. Postal Service</td></tr><tr><td>ZX</td><td>Department of Health and Human Services</td></tr></table>	<u>Digraph</u>	<u>Agency</u>	Ax	Department of Agriculture	BX	Department of Labor	Cx	Department of Commerce	Fx	Department of Justice	GX	Department of Transportation	KX	Department of Interior	MX	Department of Housing and Urban Development	QX	Department of Treasury	Sx	Department of State	TG	General Services Administration	VA	Veterans Administration	VN	National Aeronautics and Space Administration	WA	Department of Energy	WC	Federal Emergency Management Agency	WS	National Science Foundation	XX	U.S. Postal Service	ZX	Department of Health and Human Services
<u>Digraph</u>	<u>Agency</u>																																					
Ax	Department of Agriculture																																					
BX	Department of Labor																																					
Cx	Department of Commerce																																					
Fx	Department of Justice																																					
GX	Department of Transportation																																					
KX	Department of Interior																																					
MX	Department of Housing and Urban Development																																					
QX	Department of Treasury																																					
Sx	Department of State																																					
TG	General Services Administration																																					
VA	Veterans Administration																																					
VN	National Aeronautics and Space Administration																																					
WA	Department of Energy																																					
WC	Federal Emergency Management Agency																																					
WS	National Science Foundation																																					
XX	U.S. Postal Service																																					
ZX	Department of Health and Human Services																																					
		e. If one of these codes is entered in field 15A, a zero shall be entered in the high-order position of field 10A1.																																				

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit										
16 - Performance Method (1 Alpha)	A valid entry in this field is mandatory on the record at all times to identify the method of performance of the work unit. Therefore, a valid code is mandatory on all NEW transactions and a delete code or an invalid code cannot be accepted in modification transactions.	<p>a. The field may not be blank or contain a delete code .</p> <p>b. One of the following codes shall be entered:</p> <table><tr><th>Code</th><th>Definition</th></tr><tr><td>A</td><td>Work performed funded by a grant</td></tr><tr><td>B</td><td>Work performed funded by a contract</td></tr><tr><td>C</td><td>In-house work performed within the DoD agency</td></tr><tr><td>D</td><td>Work performed by a U.S. Government Agency or Department other than the DoD.</td></tr></table> <p>c. If field 16 is A or B, field 17A1, 17A2, 17B, 17D2, 17E, and 17F shall not be blank.</p> <p>d. If field 16 is C or D, fields 17A1 through 17F are blank.</p>	Code	Definition	A	Work performed funded by a grant	B	Work performed funded by a contract	C	In-house work performed within the DoD agency	D	Work performed by a U.S. Government Agency or Department other than the DoD.
Code	Definition											
A	Work performed funded by a grant											
B	Work performed funded by a contract											
C	In-house work performed within the DoD agency											
D	Work performed by a U.S. Government Agency or Department other than the DoD.											
17A1 - Contract or Grant Effective Date (4 Numeric)	A valid entry is mandatory in the record at all times if field 16 is A or B (grant or contract). The entry shall consist of a 4-digit date to identify the year and month in which the latest contract or grant funding action reported is effective. In practice this is the beginning date of the duration over which the funds reported in field 17D2 are allocated. A valid date, therefore, is mandatory on all NEW transaction in which field 16 is A or B. The date in the field may not be deleted in modification transactions as long as field 16 remains A or B. On a modification transaction in which field 17E (kind of award) is entered as NEW or EXT (see codes, page 2-25), resubmit field 17A1 to show the latest beginning date for the latest allocation of funds.	<p>a. If field 16 is A OR B, entry for field 17A1 shall meet criteria for a 4-digit date:</p> <p>(1) The two left-hand digits are the last two digits of the calendar year.</p> <p>(2) The two right-hand digits represent the month, in the range of 01-12.</p> <p>b. If field 17A1 is blank, field 16 shall be C or D.</p>										

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
17A2 - Contract or Grant Expiration Date (4 Numeric)	A valid entry is mandatory at all times in the record if field 16 is A OR B (grant or contract). The entry must consist of the 4-digit date to identify the year and month of the expiration of the current funding of the grant or contract. In practice, this is the ending date of the duration over which the funds reported in field 17D2 are allocated. A valid date, therefore, is mandatory on all NEW transactions in which field 16 is A or B, the field may not be deleted in modification transactions as long as field 16 remains or is changed to A or B. On a modification transaction in which field 17E is entered as EXT or CON, resubmit field 17A2 to indicate the latest expiration date for the funds shown in field 17D2.	<p>a. If field 16 is A or B, the entry for field 17A2 shall meet the criteria for a 4-digit date:</p> <p>(1) The left-hand two positions are the last two digits of the calendar year.</p> <p>(2) The right-hand two positions are the month, in the range 01-12.</p> <p>b. If field 17A2 is blank, field 16 shall be C or D.</p>
17B - Contract or Grant Number (24 Alphanumeric)	A valid entry is required in the record at all times if field 16 is A or B (grant or contract). The entry shall consist of the basic contract or grant number by which the work unit is funded. New contract numbers shall follow the format for the basic procurement instrument identification number as described in the DoD FAR Supplement, section 4.7003, (reference (e)). A valid contract or grant number, therefore, is mandatory on all NEW transactions in which field 16 is A or B. The field may not be deleted in modification transactions as long as field 16 remains A or B. On a modification transaction in which field 17E is entered as NEW, field 17B shall be resubmitted to identify the new contract or grant number.	<p>a. If field 16 is A or B, field 17B may not be blank.</p> <p>b. If field 17B is blank, field 16 shall be C or D.</p>

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit																																
17C - Contract Type (1 Alpha)	<p>a. If field 16 is B (contract), a contract-type code is required in the record. Refer to DoD FAR Supplement, subsection 4.671-5 item C6 (reference (e)). The entry consists of a single-digit code to identify the contract pricing provision that is the basis for payment of the new contract. A valid entry, therefore, is required on NEW transactions if field 16 is B. On modification transactions, the field may not be deleted as long as field 16 is B.</p> <p>b. If field 16 is A (grant), field 17C shall be "G."</p>	<p>a. If field 16 is B, field 17C shall consist of one of the following codes:</p> <table><tr><th>Code</th><th>Explanation</th></tr><tr><th>Code</th><th>Type of Contract</th></tr><tr><td>A</td><td>Fixed Price Redetermination: Type A</td></tr><tr><td>B</td><td>Fixed Price Redetermination: Type B</td></tr><tr><td>J</td><td>Firm Fixed Price</td></tr><tr><td>K</td><td>Fixed Price economic price adjustment</td></tr><tr><td>L</td><td>Fixed Price incentive with performance incentive</td></tr><tr><td>M</td><td>Fixed Price incentive without performance incentive</td></tr><tr><td>R</td><td>Cost Plus Award Fee</td></tr><tr><td>S</td><td>Cost Contract</td></tr><tr><td>T</td><td>Cost Sharing</td></tr><tr><td>U</td><td>Cost Plus Fixed Fee</td></tr><tr><td>V</td><td>Cost Plus incentive fee - with performance incentive</td></tr><tr><td>W</td><td>Cost Plus incentive fee - without performance incentive</td></tr><tr><td>Y</td><td>Time and materials</td></tr><tr><td>Z</td><td>Labor Hour</td></tr></table> <p>b. If field 16 is A, field 17C shall be "G" - Grant.</p> <p>c. If field 17C is blank, field 16 shall be C or D.</p>	Code	Explanation	Code	Type of Contract	A	Fixed Price Redetermination: Type A	B	Fixed Price Redetermination: Type B	J	Firm Fixed Price	K	Fixed Price economic price adjustment	L	Fixed Price incentive with performance incentive	M	Fixed Price incentive without performance incentive	R	Cost Plus Award Fee	S	Cost Contract	T	Cost Sharing	U	Cost Plus Fixed Fee	V	Cost Plus incentive fee - with performance incentive	W	Cost Plus incentive fee - without performance incentive	Y	Time and materials	Z	Labor Hour
	Code	Explanation																																
Code	Type of Contract																																	
A	Fixed Price Redetermination: Type A																																	
B	Fixed Price Redetermination: Type B																																	
J	Firm Fixed Price																																	
K	Fixed Price economic price adjustment																																	
L	Fixed Price incentive with performance incentive																																	
M	Fixed Price incentive without performance incentive																																	
R	Cost Plus Award Fee																																	
S	Cost Contract																																	
T	Cost Sharing																																	
U	Cost Plus Fixed Fee																																	
V	Cost Plus incentive fee - with performance incentive																																	
W	Cost Plus incentive fee - without performance incentive																																	
Y	Time and materials																																	
Z	Labor Hour																																	

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
17D1 - Partial Contract or Grant Code (1 Alpha)	If the work unit data and, more specifically, the dollar amount shown in field 17D2 <u>does not</u> represent an entire contract or grant, enter a P in field 17D1. The code P identifies the work unit as a part of a larger contract or grant effort.	Field 17D1 shall be either blank or P.
17D2 - Contract or Grant Dollar Amount (9 Numeric)	<p>a. If field 16 is A or B (grant or contract), a numeric entry for this field is mandatory in the record at all times. Enter the latest amount of the funding of the contract or grant identified in field 17B, rounded to the nearest whole dollar, for the duration shown in fields 17A1 and 17A2. Right-justify the dollar amount in punch cards or card images. Precede the dollar amount with zeros in the unused high-order columns.</p> <p>b. If field 17D1 is a P, enter only that portion of the amount applicable to the particular work unit record.</p> <p>c. If the amount of funding is zero, enter all zeros.</p> <p>d. A numeric entry is mandatory on all NEW transactions in which field 16 is A or B. The field may not be deleted in modification transactions as long as field 16 remains or is changed to A or B.</p> <p>e. On modification transactions in which field 17E is changed to NEW, EXT, or SUP, resubmit field 17D2 to reflect the latest funding amount. When field 17E is SUP, to indicate a change in funding amount without a change in duration, enter the amount of additional funds awarded, not the total amount awarded for the ration shown in fields 17A1 and 17A2.</p>	<p>a. If field 16 is A or B, field 17D2 may not be blank.</p> <p>b. If field 17D2 is blank, field 16 shall be C or D.</p> <p>c. Flag dollar amount in excess of \$500,000 as a possible error.</p>

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit										
17E - Kind of Award (3 Alpha)	<p>a. A valid entry is mandatory in the record at all times if field 16 is A or B (grant or contract). The entry is a 3-character code identifying the current kind of award or funding action by which the work unit is funded. A valid entry, therefore, is mandatory on all NEW transactions in which field 16 is A or B. The kind of award need not always be NEW in a NEW transaction since the contract or grant may have been in being already. The field may not be deleted by a modification transaction as long as field 16 remains or is changed to an A or B.</p> <p>b. On a modification transaction, depending upon the kind of award, other specified contract or grant data relating to the award shall be updated:</p> <p>(1) If 17E is NEW, submit also fields 17A1, 17A2, 17B, 17D2, and 17F.</p> <p>(2) If 17E is SUP, submit also fields 17D2 and 17F.</p> <p>(3) If 17E is EXT, submit also fields 17A1, 17A2, 17D2, and 17F.</p> <p>(4) If 17E is CON, submit also field 17A2.</p>	<p>a. If field 16 is A or B, one of the following codes shall be entered in field 17E:</p> <table><tr><th>Code</th><th>Explanation</th></tr><tr><td>NEW</td><td>The initial award for the contract or grant number identified in 17B.</td></tr><tr><td>SUP</td><td>The provision of additional funds <u>without</u> extension of the duration of the contract or grant.</td></tr><tr><td>EXT</td><td>The provision of additional funds <u>with</u> extension of the duration of the contract or grant.</td></tr><tr><td>CON</td><td>The continuance of a contract or grant in time without provision of additional funds.</td></tr></table> <p>b. If field 17E is blank, field 16 shall be C or D.</p>	Code	Explanation	NEW	The initial award for the contract or grant number identified in 17B.	SUP	The provision of additional funds <u>without</u> extension of the duration of the contract or grant.	EXT	The provision of additional funds <u>with</u> extension of the duration of the contract or grant.	CON	The continuance of a contract or grant in time without provision of additional funds.
Code	Explanation											
NEW	The initial award for the contract or grant number identified in 17B.											
SUP	The provision of additional funds <u>without</u> extension of the duration of the contract or grant.											
EXT	The provision of additional funds <u>with</u> extension of the duration of the contract or grant.											
CON	The continuance of a contract or grant in time without provision of additional funds.											
17F - Contract or Grant Cumulative Dollar Total (9 Numeric)	<p>a. If field 16 is A or B (grant or contract), a numeric entry for this field in the record is mandatory at all times to show the cumulative dollar total to date for the contract or grant identified in field 17B. Enter the total rounded to the nearest whole dollar. Right-justify the dollar amount in punch cards or card images. Precede the dollar amount with zeros in the unused high-order columns.</p>	<p>a. If field 16 is A or B, field 17F may not be blank.</p> <p>b. If field 17F is blank, field 16 shall be C or D.</p>										

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
17F - Contract or Grant Cumulative Dollar Total - continued	<p>b. If field 17D1 is a P, enter only the portion of the total amount applicable to the particular work unit.</p> <p>c. A numeric entry, therefore, is mandatory on all NEW transactions in which field 16 is A or B. The field may not be deleted in modification transactions as long as field 16 remains or is changed to A or B.</p>	
18 - Fiscal Year Resource 18A Estimates 18B	<p>a. This is a set of three data elements used to describe expenditures of professional work-year and funds resources in support of the work unit during a specified fiscal year. Regardless of transaction type, if any entry is made in one field, a valid entry is required in each of the three fields.</p> <p>b. Only three sets of summary data are provided for on the DD Form 1498 and may be entered in an input transaction. Resources data are maintained in the WUIS for 5 successive fiscal years. On October 1 of each year, the identity of the current, budget and the 3 preceding fiscal years is changed and the location of the work-years and funds estimates is changed accordingly. Regardless of the name of fields in which the resource data are entered, the input program will assign the data to the proper location in the file based solely on the 2-digit fiscal year designation.</p> <p>c. A valid entry is required on all NEW transactions.</p>	

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit										
18 - Fiscal Year Resource 18A Estimates - continued 18B	<p><u>Example:</u></p> <table><tr><th>Summary Date</th><th>FY</th><th>FY- 1</th><th>Fiscal Years FY-2</th><th>FY- 3</th></tr><tr><td>Ott 83</td><td>84</td><td>83</td><td>82</td><td>81</td></tr></table>	Summary Date	FY	FY- 1	Fiscal Years FY-2	FY- 3	Ott 83	84	83	82	81	
Summary Date	FY	FY- 1	Fiscal Years FY-2	FY- 3								
Ott 83	84	83	82	81								
181 - Fiscal Year 182 (2 Numeric) 183	Enter the last two digits of the current fiscal year for which resource estimates are being reported. Indicated FY's may include the Budget Year (FY+1) through FY-3.	<p>a. If FY is blank, fields 18A and 18B shall be blank.</p> <p>b. If FY is not blank, fields 18A and 18B may not be blank.</p>										
181A - Fiscal Year Professional 182A Work-Years 183A (6 Numeric)	Enter professional work-years expended or to be expended on the work unit. If fiscal year data are not applicable, leave blank. Enter work-year estimates to the nearest tenth of a work-year. (An entry of 10 is interpreted as 1.0 work-year.) If the level of effort is zero, enter all zeros. Right-justify the work-year amount in punch cards or card images. Precede the amount with zeros in the unused high-order columns.	<p>a. Flag entries in excess of five work-years as a possible error.</p> <p>b. The entry shall be numeric.</p>										
181B - Fiscal Year Funds 182B (6 Numeric) 183B	Enter fiscal year funds expended on the work unit. If fiscal year data are not applicable, leave blank. Enter funds to the nearest thousand dollars. (An entry of 10 is interpreted as \$10,000.) If the level of funding is zero, enter all zeros. Right-justify the funds amount in punch cards or card images. Precede the funds amount with zeros in the unused high-order columns.	<p>a. The entry shall be numeric.</p> <p>b. If field 18B is blank, fields 18 and 18A shall be blank.</p> <p>c. If field 18B is not blank, the FY identified may not be blank.</p>										

Table 2-1

Field	Instruction	Edit and Audit
19A - Responsible DoD Organization Name (122 Alphanumeric)	A valid entry for this field in the record is mandatory at all times. Enter the full name of the responsible DoD organization, not just an acronym or abbreviation. The name and office symbol of the organizational subdivision directly responsible for the work unit shall be included. A valid entry is mandatory on all NEW transactions. The field may not be deleted by a modification transaction.	The-field may not be blank on a NEW transaction or contain a delete code in a modification transaction.
19B - Responsible DoD Organization Address (61 Alphanumeric)	A valid entry for this field in the record is mandatory at all times. Enter the city (base, post, or station) and state address; including zip code, of the responsible DoD organization. A valid entry is mandatory on NEW transactions. The field may not be deleted by a modification transaction.	The field may not be blank on a NEW transaction or contain a delete code on a modification transaction.
19C - Responsible Individual's Name (24 Alpha)	A valid entry for this field is mandatory in the record at all times. Therefore, it is mandatory on NEW transactions and may not be deleted by a modification transaction. Enter the name of the person responsible for the work units as: last name first, followed by a comma, and then the first and middle initials separated by spaces. Do not enter title or rank. Example: Admiral J. F. Walsh <u>Correct Entry</u> - WALSH, J F	The field may not be blank on a NEW transaction or contain a delete code on a modification transaction.

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
19D - Responsible Individual's Telephone Number (22 Alphanumeric)	An entry for this field is mandatory in the record at all times. Therefore, it is mandatory in NEW transactions and may not be deleted on a modification transaction. Enter the responsible individual's commercial telephone number as a 3-digit area code, a 3-character exchange and the 4-digit number separated by dashes. This may be followed by an extension number. <u>Example:</u> 202-123-4567, X66992	The field may not be blank in a NEW transaction or contain a delete code in a modification transaction.
19E - Responsible Individual's Title	(See Appendix C)	
19T - Responsible Organization Source (6 Numeric)	Assign a 6-digit numeric code from the DTIC Source Header List (AD-A115 000 and AD-A115 001). To have a code established for any source not found in the list, contact DTIC-TID (AV 284-6304).	
20A - Performing Organization Name (122 Alphanumeric)	An entry for this field is mandatory in the record at all times. Therefore, it is mandatory on NEW transactions and may not be deleted on a modification transaction. Enter the full name of the performing organization and not just an acronym. The name and, when appropriate, the organizational symbol of the subdivision directly involved should be included.	The field may not be blank in a NEW transaction or contain a delete code in a modification transaction.
20B - Performing Organization Address (122 Alphanumeric)	An entry for this field is mandatory in the record at all times. Therefore, it is mandatory on all NEW transactions and may never be deleted on modification transactions. Enter the full mailing address of the performing organization, including the street address if known. The zip code is required for domestic addresses.	The field may not be blank in a NEW transaction or contain a delete code in a modification transaction.

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
20C - Principal Investigator Name (24 Alpha)	The name of the principal investigator must be entered on all records. Format the name as in field 19C: last name first, followed by a comma, and then the first and middle initials separated by spaces, Do not enter title or rank.	Check for a blank in field 20C on a NEW transaction.
20D - Principal Investigator's Telephone Number (22 Alphanumeric)	Enter the commercial telephone number of the principal investigator as: "a 3-digit area code, a 3-character exchange and the 4-digit number separated by dashes. This may be followed by an extension number. Example: 202-123-4567, X44	
20F - Associate Investigator 20G (28 Alpha Each)	These are two optional data fields used to identify when applicable, the names of up to two associate investigators involved in the performance of the work unit. If the name of only one associate investigator is applicable, enter it in field 20F. If previously submitted names are no longer applicable, use the delete code.	
20H - Principal Investigator's Title	(See Appendix C) "	
20T - Performing Organization Source Code (6 Numeric)	Assign a 6-digit numeric code from the DTIC Source Header List (AD-A115 000 and AD-A115 001). To have a code established for any source not found in the list contact DTIC-TID (AV 284-6804).	
21A-D - Studies and Analyses	(See Appendix D)	
21E - Military and Civilian Application (1 Alpha)	a. An entry in this field indicates whether the WU consists of results in technology identified as applicable or inapplicable to solving technological problems of the civilian sector. b. One of the three categories shall be noted as follows: Table 2-1	One of the following codes must be entered: Code H Potential for civilian application is high L Potential for civilian application is limited M No potential for civilian application

Detailed WIS Field Descriptions		
Field	Instruction	Edit and Audit
21E - Military and Civilian Application - continued	1. H - High potential for civilian application	
	Use this designation if you believe one or more of the following are true of any technology developed in the project:	
	(a) The technology will provide significant new capability in an important area of the civilian (public or private) sector or a new capability to meet a broad range of civilian needs.	
	(b) The technology will allow the production of current products or provisions of services at a greatly reduced cost.	
	(c) The technology can be brought to the commercial market or applied to meet a civilian need with little further adaptation.	
	2. L - Limited potential for civilian application	
	Use this designation for all work units that have technology that fits neither category H or M.	
	3. M - Military application only	
	Use this designation if you can foresee <u>no</u> potential civilian application for any research results or technical development made in the work unit.	

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
22 - Keywords ^{1, 2} (Variable Length)	<p>a. This is a field for recording a maximum of twenty keywords. Each keyword is entered on a separate input card or card image. Each keyword may not exceed 50 characters including security code and spaces.</p> <p>b. At least one keyword is required on all NEW transactions.</p> <p>c. Each keyword is preceded by its security code (either U, C, or S). On the input card or card image leave no space between the security code and the first character of the keyword.</p> <p><u>Example:</u></p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: right; margin-right: 10px;">Classification</div> <div style="text-align: center;"> <div style="border-bottom: 1px solid black; padding-bottom: 2px;">UBIOLOGY</div> <div style="font-size: 2em; margin: 0;">V</div> <div style="margin-top: 2px;">Keyword</div> </div> </div>	<p>a. The first character of each keyword in input card field shall be U, C, or S for entry in the WUIS by DTIC.</p> <p>b. A cross-field check is performed between field 5, summary security, and the security classification of each keyword to ensure that the classification of any keyword is equal to or less than that of the record.</p> <p>c. On a NEW transaction, check to see that field 22 is not blank.</p>
23 - Technical Objective (2700 Alphanumeric)	<p>a. These are three variable length fields or paragraphs in which are entered narrative descriptions of the work unit and its progress. The length of any one of the paragraphs may vary but the total of the three may not exceed 5000 characters, including spaces ,</p>	
24 - Approach (2700 Alphanumeric)		

¹DO NOT USE study keywords SA-PPP, SA-PPB, and SA-PPI unless the work unit is a study as defined by DoD Directive 5010.22 (reference (f)).

²See Appendix D.

Contracts awarded through the Small Business Innovation Research (SBIR) Program **shall** be identified by the keyword, SBIR Program, and an additional keyword designating the appropriate fiscal year and phase, for example, FY84 Phase 1.

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
25 - Progress (2700 Alphanumeric)	b. Special symbols, Greek letters, superscripts, subscripts and the like will not be accepted as input; therefore, such information or notations shall be expressed verbally (see table 2-3).	
23 - Technical Objective (Technical Abstract)	<p>a. A narrative entry is mandatory on all NEW transactions to describe the work in terms of its technical objective and anticipated results, applications or goals. When necessary, the technical objective and approach (see field 24) may be combined in field 23 as a technical abstract. This is especially appropriate to scientific research when the approach is an integral part of the objective.</p> <p>b. The first character in the field, immediately preceding the first character of text, is the code (either U, C, or S) for the security classification of the paragraph.</p> <p>c. Field 23 may not be deleted. Any change or addition to the paragraph can be accomplished only by a total resubmission of the paragraph on a modification transaction.</p>	<p>a. Regardless of transaction type:</p> <p>(1) The first character of the field shall be either S, C, or U.</p> <p>(2) The paragraph security code is compared to that reported for field 5 (summary security) to ensure that the classification of the paragraph is less than or equal to the classification of the record.</p> <p>b. Field 23 may not be blank on a NEW transaction or deleted by a modification transaction.</p>
24 - Approach	<p>a. This is a specific paragraph for a narrative outline of the approach or plan for conducting the work, anticipated tests or equipment to be employed or technical problem anticipated.</p> <p>b. If the approach has been combined with the technical objective in field 23 as a technical abstract, field 24 may be blank (not submitted) on a NEW transaction.</p>	<p>a. Regardless of transaction type:</p> <p>(1) The first character of the field shall be either S, C, or U, unless the entire field is blank.</p> <p>(2) The paragraph security code is compared to that reported for field 5 (summary security) to ensure that the classification of the paragraph is less than or equal to the classification of the record.</p> <p>b. Field 24 may be blank when the approach is an integral part of field 23.</p>

Table 2-1

Detailed WUIS Field Descriptions

Field	Instruction	Edit and Audit
24 - Approach - continued	c. The first character in the field, immediately preceding the first character of text, is the code (either U, C or S) for the security classification of the paragraph.	
25 - Progress	<p>a. An entry for this field is mandatory in the record at all times. Except as noted below, the entry shall contain the dates of the reporting interval covered and a narrative statement of the progress achieved during the period toward the goals outlined previously in fields 23 and 24. Significant reports generated within the reporting period should be identified by number, title, date, and , if known, the DTIC accession number.</p> <p>b. The first character in the field, immediately preceding the first character of text, is the code (either U, C or S) for the security classification of the paragraph.</p> <p>c. An entry of "UNONE" is required on a NEW transaction if there is no reportable progress. The field may not be deleted by a modification transaction.</p> <p>d. Changes or additions to progress statements can be accomplished only by a total resubmission of the paragraph on a modification transaction.</p> <p>e. A valid progress report (other than NONE) shall have been received before a COMPLETION transaction.</p> <p>f. An initial TERMINATION transaction shall contain a progress entry containing a statement of the reason for termination.</p>	<p>a. Regardless of transaction type:</p> <p>(1) The first character of the field shall be either S, C, or U.</p> <p>(2) The paragraph security code is compared to that reported for field 5 (summary security) to ensure that the classification of the paragraph is less than or equal to the classification of the record.</p> <p>b. Check for valid entry in field 25 on a NEW transaction.</p>

Table 2-1

E. sumy DESCRIPTION OF DATA FIELDS

The following list summarizes the characteristics of the individual data fields . (Additional data fields are described in Appendices A, B, C, and D.) This summary shows the fields that generally shall be included in each type of transaction. Some entries are indicated to be necessary depending on the content of other fields; for example, field 7 (regrading) contains a valid code on a NEW transaction if field 5 (summary security) contains C or S.

SUMMARY DESCRIPTION OF RESEARCH AND TECHNOLOGY WUIS INPUT DATA FIELDS

<u>FIELD NUMBER</u>	<u>FIELD NAME</u>	<u>LENGTH AND CHARACTER TYPE</u>	<u>CARD TYPE</u>	<u>CARD COLUMN</u>
1	Agency Accession Number	8A/N	AØ1	2-9
2	Date of Summary	6N	AØ1	10-15
3	Date of Previous Summa ry	6N	AØ1	20-25
4	Kind of Summary (Transaction Type)	1A	AØ1	16
5	Summary Security	1A	AØ1	26
6	Work Security	1A	AØ1	27
7	Regrading Code	1A	AØ1	28
7A	Classification Authority	60A/N	AØ4	20-79
7B1	Date of Declassification	6N	AØ5	20-25
7B2	Declassification Event	54A/N	AØ5	26-79
7C1	Date of Downgrading	6N	AØ6	20-25
7C2	Downgrading Event	54A/N	AØ6	26-79
7D	Classification Duration	4A	AØ7	20-23
8A1	Distribution Instruction	2A	AØ1	29-30
8A2	Additional Security Restriction	2A	AØ1	31-32
9	Level of Summary	1A	AØ1	34
10A1	Primary Program Element Number	8A/N	AØ1	35-42
10A2	Primary Project Number	12A/N	AØ1	43-54
10A3	Primary Task Area Number	10A/N	AØ1	55-64

SUMMARY DESCRIPTION OF RESEARCH AND TECHNOLOGY WUIS INPUT DATA FIELDS
(continued)

<u>FIELD NUMBER</u>	<u>FIELD NAME</u>	<u>LENGTH AND CHARACTER TYPE</u>	<u>CARD TYPE</u>	<u>CARD COLUMN</u>
10A4	Work Unit Number	16A/N	AØ1	65-80
10B1	First Contributing Program Element	8A/N	BØ1	20-27
10B2	First Contributing Project Number	12A/N	BØ1	28-39
10B3	First Contributing Task Number	10A/N	BØ1	40-49
10C1	Second Contributing Program Element	8A/N	BØ1	50-57
10C2	Second Contributing Project Number	12A/N	BØ1	58-69
10C3	Second Contributing Task Number	10A/N	BØ1	70-79
11	Title	244A/N	CØ1 to CØ4	20-80
12A	First Scientific and Technological Fields and Groups Code	6A/N	DØ1	20-25
12B	Second Scientific and Technological Fields and Groups Code	6A/N	DØ1	26-31
12C	Third Scientific and Technological Fields and Groups Code	6A/N	DØ1	32-37
13	Work Unit Start Date	4N	DØ1	38-41
14	Estimated Completion Date	4N	DØ1	42-45
15A	Primary Funding Organization	2A	DØ1	46-47
15B	Other Funding Organization	2A	DØ1	48-49
15C	Other Funding Organization	2A	DØ1	50-51
16	Performance Method	1A	DØ1	52
17A1	Contract or Grant Effective Date	4N	EØ1	20-23
17A2	Contract or Grant Expiration Date	4N	EØ1	24-27
17B	Contract or Grant Number	24A/N	EØ1	28-51
17C	Contract Type	1A	EØ1	52

SUMMARY DESCRIPTION OF RESEARCH AND TECHNOLOGY WUIS INPUT DATA FIELDS
(continued)

<u>FIELD NUMBER</u>	<u>FIELD NAME</u>	<u>LENGTH AND CHARACTER TYPE</u>	<u>CARD TYPE</u>	<u>CARD COLUMN</u>
17D1	Partial Contract or Grant Code	1A	EØ1	53
17D2	Contract or Grant Dollar Amount	9N	EØ1	54-62
17E	Kind of Award	3A	EØ1	63-65
17F	Contract or Grant Cumulative Dollar Total,	9N	EØ1	66-74
181	Fiscal Year	2N	FØ1	20-21
182	Fiscal Year	2N	FØ 1	34-35
183	Fiscal Year	2N	FØ 1	48-49
181A	Fiscal Year Professional Work-Years	6N	FØ 1	22-27
182A	Fiscal Year Professional Work-Years	6N	FØ 1	36-41
183A	Fiscal Year Professional Work-Years	6N	FØ1	50-55
181B	Fiscal Year Funds	6N	FØ1	28-33
182B	Fiscal Year Funds	6N	FØ1	42-47
183B	Fiscal Year Funds	6N	FØ1	56-61
19A	Responsible DoD Organization Name	122A/N	GØ1 to GØ2	20-80
19B	Responsible DoD Organization Address	6 1A/N	HØ1	20-80
19C	Responsible Individual's Name	24A	JØ1	20-43
19D	Responsible Individual's Telephone Number	22A/N	JØ 1	48-69
19T	Responsible DoD Organization Source Code	6N	GØ3	20-25
20A	Performing Organization Name	122A/N	KØ 1 to KØ2	20-80

SUMMARY DESCRIPTION OF RESEARCH AND TECHNOLOGY WUIS INPUT DATA FIELDS
(continued)

<u>FIELD NUMBER</u>	<u>FIELD NAME</u>	<u>LENGTH AND CHARACTER TYPE</u>	<u>CARD TYPE</u>	<u>CARD COLUMN</u>
20B	Performing Organization Address	122A/N	LØ1 to LØ2	20-80
20C	Principal Investigator's Name	24A	MØ1	20-43
20D	Principal Investigator's Telephone Numb e r	22A/N	MØ1	48-69
20F	First Associate Investigator	28A	NØ1	20-47
20G	Second Associate Investigator	28A	NØ1	48-75
20T	Performing Organization Source Code	6N	KØ3	20-25
2 1E	Military and Civilian Application	1A	DØ1	62
22	Keywords	50A/N	PØ1 to P2Ø	20-69
23	Technical Objective	Variable, A/N	QØ1 to Q45	20-80
24	Approach	Variable, A/N	RØ1 to R45	20-80
25	Progress	Variable, A/N	SØ1 to S45	20-80

SCIENTIFIC AND TECHNOLOGICAL FIELDS AND GROUPS

(Item 12, Research and Technology WU Summary)

01 AERONAUTICS

01 01 Aerodynamics
 01 02 Aeronautics
 01 03 Aircraft
 01 04 Aircraft flight
 instrumentation
 01 05 Air facilities

02 AGRICULTURE

02 01 Agricultural chemistry
 02 02 Agricultural economics
 02 03 Agricultural engineering
 02 04 Agronomy and
 horticulture
 02 05 Animal husbandry
 02 06 Forestry

03 ASTRONOMY AND ASTROPHYSICS

03 01 Astronomy
 03 02 Astrophysics
 03 03 Celestial mechanics

04 ATMOSPHERIC SCIENCES

04 01 Atmospheric physics
 04 02 Meteorology

05 BEHAVIORAL AND SOCIAL SCIENCES

05 01 Administration and
 management
 05 02 Documentation and
 information technology
 05 03 Economics
 05 04 History, law, and
 political science
 05 05 Human factors
 engineering
 05 06 Humanities

05 BEHAVIORAL AND SOCIAL SCIENCES - cont.

05 07 Linguistics
 05 08 Man-machine relations
 05 09 Personnel selection,
 training, and evaluation
 05 10 Psychology (individual and
 group behavior)
 05 11 Sociology

06 BIOLOGICAL AND MEDICAL SCIENCES

06 01 Biochemistry
 06 02 Bioengineering
 06 03 Biology
 06 04 Bionics
 06 05 Clinical medicine
 06 06 Environmental biology
 06 07 Escape, rescue, and survival
 06 08 Food
 06 09 Hygiene and sanitation
 06 10 Industrial (occupational)
 medicine
 06 11 Life support
 06 12 Medical and hospital equipment
 06 13 Microbiology
 06 14 Personnel selection and
 maintenance (medical)
 06 15 Pharmacology
 06 16 Physiology
 06 17 Protective equipment
 06 18 Radiobiology
 06 19 Stress physiology
 06 20 Toxicology
 06 21 Weapons effects

07 CHEMISTRY

07 01 Chemical engineering
 07 02 Inorganic chemistry
 07 03 Organic chemistry
 07 04 Physical chemistry
 07 05 Radio and radiation chemistry

Table 2-2

SCIENTIFIC AND TECHNOLOGICAL FIELDS AND GROUPS

(Item 12, Research and Technology WU Summary)

08 EARTH SCIENCES AND OCEANOGRAPHY	11 MATERIALS - continued
08 01 Biological oceanography	11 06 Metallurgy and metallography
08 02 Cartography	11 07 Miscellaneous materials
08 03 Dynamic oceanography	11 08 Oils, lubricants, and hydraulic fluids
08 04 Geochemistry	11 09 Plastics
08 05 Geodesy	11 10 Rubber
08 06 Geography	11 11 Solvents, cleaners, and abrasives
08 07 Geology and mineralogy	11 12 Wood and paper products
08 08 Hydrology and limnology	12 MATHEMATICAL SCIENCES
08 09 Mining engineering	12 01 Mathematics and statistics
08 10 Physical oceanography	12 02 Operations research
08 11 Seismology	
08 12 Snow, ice, and permafrost	
08 13 Soil mechanics	
08 14 Terrestrial magnetism	
09 ELECTRONICS AND ELECTRICAL ENGINEERING	13 MECHANICAL, INDUSTRIAL, CIVIL, AND MARINE ENGINEERING
09 01 Components	13 01 Air conditioning, heating, lighting, and ventilating
09 02 Computers	13 02 Civil engineering
09 03 Electronic and electrical engineering	13 03 Construction equipment, materials and supplies
09 04 Information theory	13 04 Containers and packaging
09 05 Subsystems	13 05 Couplings, fittings, fasteners and joints
09 06 Telemetry	13 06 Ground transportation equipment
10 ENERGY CONVERSION (NONPROPULSIVE)	13 07 Hydraulic and pneumatic equipment
10 01 Conversion techniques	13 08 Industrial processes
10 02 Power sources	13 09 Machinery and tools
10 03 Energy storage	13 10 Marine engineering
11 MATERIALS	13 11 Pumps, filters, pipes, fittings, tubing, and valves
11 01 Adhesives and seals	13 12 Safety engineering
11 02 Ceramics, refractories, and glasses	13 13 Structural engineering
11 03 Coatings, colorants, and finishes	13 10.1 Submarine engineering
11 04 Composite materials	
11 05 Fibers and textiles	

Table 2-2 (Continued)

SCIENTIFIC AND TECHNOLOGICAL FIELDS AND GROUPS

(Item 12, Research and Technology WU Summary)

<i>14</i> METHODS AND EQUIPMENT		<i>17</i> NAVIGATION, COMMUNICATIONS, DETECTION , AND COUNTERMEASURES - continued	
<i>14 01</i>	Cost effectiveness		
<i>14 02</i>	Laboratories , test facilities, and test equipment	<i>17 08</i>	Optical detection
<i>14 03</i>	Recording devices	<i>17 09</i>	Radar detection
<i>14 04</i>	Reliability	<i>17 02.1</i>	Radio communications
<i>14 05</i>	Reprography	<i>17 10</i>	Seismic detection
<i>15</i> MILITARY SCIENCES		<i>17 07</i>	Surface and subsurface navigation
<i>15 03.1</i>	Antimissile defense	<i>18</i> NUCLEAR SCIENCE AND TECHNOLOGY	
<i>15 01</i>	Antisubmarine warfare	<i>18 01</i>	Fusion device (thermonuclear)
<i>15 02</i>	Chemical, biological, and radiological warfare	<i>18 02</i>	Isotopes
<i>15 03</i>	Defense	<i>18 03</i>	Nuclear explosions
<i>15 04</i>	Intelligence	<i>18 04</i>	Nuclear instrumentation
<i>15 05</i>	Logistics	<i>18 05</i>	Nuclear power plants
<i>15 06</i>	Nuclear warfare	<i>18 06</i>	Radiation shielding and protection
<i>15 07</i>	Operations, strategy, and tactics	<i>18 07</i>	Radioactive wastes and fission products
<i>16</i> MISSILE TECHNOLOGY		<i>18 08</i>	Radioactivity
<i>16 04.1</i>	Air and space launched missiles	<i>18 09</i>	Reactor engineering and operation
<i>16 01</i>	Missile launching and ground support	<i>18 10</i>	Reactor materials
<i>16 02</i>	Missile trajectories	<i>18 11</i>	Reactor physics
<i>16 03</i>	Missile warheads and fuzes.	<i>18 12</i>	Reactors (power)
<i>16 04</i>	Missiles	<i>18 13</i>	Reactors (nonpower)
<i>16 04.2</i>	Surface launched missiles	<i>18 14</i>	Systems for Nuclear Auxiliary Power (SNAP) technology
<i>16 04.3</i>	Underwater launched missiles	<i>19</i> ORDNANCE	
<i>17</i> NAVIGATION, COMMUNICATIONS, DETECTION, AND COUNTERMEASURES		<i>19 01</i>	Ammunition, explosives, and pyrotechnics
<i>17 01</i>	Acoustic detection	<i>19 02</i>	Bombs
<i>17 02</i>	Communications	<i>19 03</i>	Combat vehicles
<i>17 03</i>	Direction finding	<i>19 04</i>	Explosions, ballistics, and armor
<i>17 04</i>	Electromagnetic and acoustic countermeasures	<i>19 05</i>	Fire control and bombing systems
<i>17 05</i>	Infrared and ultraviolet detection	<i>19 06</i>	Guns
<i>17 06</i>	Magnetic detection	<i>19 07</i>	Rockets
		<i>19 08</i>	Underwater ordnance

Table 2-2 (Continued)

SCIENTIFIC AND TECHNOLOGICAL FIELDS AND GROUPS

(Item 12, Research and Technology WU Summary)

20 PHYSICS		CONTROL, GUIDANCE, AND NAVIGATION - AEROSPACE VEHICLES, MISSILES, AIRCRAFT	
20 01	Acoustics		
20 02	Crystallography		
20 03	Electricity and magnetism	17 07	Active electromagnetic
20 04	Fluid mechanics		radiators, sensors, and equipment
20 06	Optics	17 07	Control analysis theory
20 07	Particle accelerators	17 07	Control design methodology, techniques and procedures, simulation and systems
20 08	Particle physics		
20 09	Plasma physics		
20 10	Quantum theory	17 07	Control devices and equipment
20 11	Solid mechanics	17 07	Control, guidance, and navigation (computers and related programming)
20 12	Solid state physics		
20 13	Thermodynamics		
20 14	Wave propagation	17 07	Display devices and equipment
21 PROPULSION AND FUELS		17 07	Guidance and navigation analysis and theory
		17 07	Guidance and navigation design methodology, techniques and procedures, and systems
21 01	Air breathing engines		
21 02	Combustion and ignition		
21 03	Electric propulsion	05 08	Human operator control characteristics and performance
21 04	Fuels		
21 05	Jet and gas turbine engines		
21 08.1	Liquid rocket motors	17 07	Inertial sensors and measurement units
21 09.1	Liquid rocket propellants		
21 06	Nuclear propulsion	17 07	Passive sensors, trackers, and references
21 07	Reciprocating engines		
21 08	Rocket motors and engines		
21 09	Rocket propellants		
21 08.2	Solid rocket motors		
21 09.2	Solid rocket propellants		
22 SPACE TECHNOLOGY			
22 01	Astronautics		
22 02	Spacecraft		
22 04	Spacecraft launch vehicles and ground support		
22 03	Spacecraft trajectories and reentry		

Table 2-2 (Continued)

VERBALIZING FOR MACHINABILITY

The following symbols may be used in abstracts, annotations and titles:

. , : ; ' / * \$ % () - + = < > & ?

The following symbols may be used in indexing terms:

. / () -

ACCENTS/DIACRITICAL MARKS

Omit except in the following cases:

\ddot{a} is replaced by ae
 \ddot{o} is replaced by oe
 \ddot{u} is replaced by ue
 ϕ is replaced by oe

} Germanic languages

ANGSTROM UNITS (\AA)

Use A

CHEMICALS

H₂S₀₄ use H₂S₀₄

→ use yields

See also PRIMES, SUBSCRIPTS, SUPERSCRIPITS

CUBIC

cm^3 use cu cm or cc
 ft^3 use cu ft
 m^3 use cu m

$\frac{1}{x^3}$
 or use 1/(x cubed)
 x^{-3}

See also EXPONENTS

DEGREES

Angles: 6d30'15" use 60 deg 30 min 15 sec
 Latitude/Longitude: Add N, S, E, or W at end of expression.
 60°30'15" N use 60deg30min 15 sec N
 Temperature: 600 C use 60 C
 60° F use 60 F
 60° K use 60 K

DIACRITICAL MARKS

See ACCENTS/DIACRITICAL MARKS

EXPONENTS

$x^{(n-1)}$ use x to the (n-1) power
 ft sec^{-1} use ft/sec
 When the exponent is less than 7 and has the base 10, write out the number, for example,
 10^2 use 100
 10^{-4} use 0,0001
 2.75×10^3 use 0,00275
 When the base is 10 and the exponent is 7 or more, write out, for example,
 10^7 use 10 to the 7th power
 10^{-9} use 10 to the minus 9th power
 See also CUBIC, SQUARE, SUPERSCRIPITS

FRACTIONS

Use the slash (virgule) for the fraction bar, for example,

$x = \frac{a-b}{c}$ use $x = (a-b)/c$

$x = a - \frac{b}{c}$ use $x = a - (b/c)$

GREATER THAN OR EQUAL TO (\geq)

Use > or =

GREEK LETTERS

Use their names, for example,

α use alpha

β use beta

μ use mu, micro, or micron as applicable

π use pi

See also SPECIAL SYMBOLS

ITALICS

Do not use; see also UNDERSCORING

LESS THAN OR EQUAL TO(S)

Use < or =

LOGARITHMS

\log_{10} use log

\log_e use ln (alpha "l" not digit "1")

MICRO- or MICROMICRO-

μ l use microliters

μ s use microsecs

μ v use microvolt

μ f use m icrom icrofarads or picofarads

MICRONS

μ use micron when applicable

m μ use millimicron

μ m use micrometer or micron

μ μ use micromicron or picometer

PLUS OR MINUS (\pm)

Use + or -

PRIMES (')

Use repeating apostrophe

2,2',2" -terpyridyl use 2,2',2" -terpyridyl

a''' (a triple prime) use a'''

QUOTATION MARKS (“)

Use the apostrophe or single quote only, for example the term 'overkill'

When quotation marks are used conventionally as a symbol, abbreviate, for example,

12" use 12 in.

5"/54 cal guns use 5-in./54-cal guns

45" use 45 sec

See also DEGREES, PRIMES

SPECIAL SYMBOLS

\approx use approx. =

\rightarrow use yields (chemistry)
 \rightarrow use approaches limit of (mathematics)

\vec{K} use K

use number

∞ use infinity

λ { use wavelength (electronics and physics)
use lambda (all other)

Ω { use ohms (electricity and electronics)
use omega (all other)

ϕ { use phase (electricity and electronics)
use phi (all other)

Similarity, spell out or show by acceptable alphanumeric characters, such as increment, varies as, therefore, differential of, variation of, integral, sum, benzene ring, thunderstorm, male, female, and fixed *star*.

SQUARE

cm² use sq cm

ft² use Sq ft

m² use sq m

$\frac{1}{x^2}$ } use 1/(x squared)
 x^{-2} }

See also EXPONENTS

SQUARE ROOT

$\sqrt{a-b}$ } use square root of (a-b)
 $a^{1/2}$ }
(a-b) }

SUBSCRIPTS

P_H use P sub H

V₂ use V sub 2

B 5 use B (omit the 5, which is the atomic number of boron)

C 14 use C 14 if it is the isotope of carbon

See also CHEMICALS, SUPERSCRIPTS

SUPERSCRIPTS

¹⁴C use C14

H⁺ use H(+)

SO₄⁻ use S04(-)

V⁵⁺ use v (5+)

U²³⁴ use U234

B¹⁰ use B10

O¹⁸(p,n)N¹⁵ use 018 (p,n)N15

d₂₃²⁵ use density at 23 deg F referred to water at 25 deg F

n₂₀^D use index of refraction for 20 deg F and sodium light

See also CUBIC, EXPONENTS, SQUARE

UMLAUT see ACCENT

UNDERSCORING

Do not use underscoring.

Escherichia coli use Escherichia coli

quasar use quasar